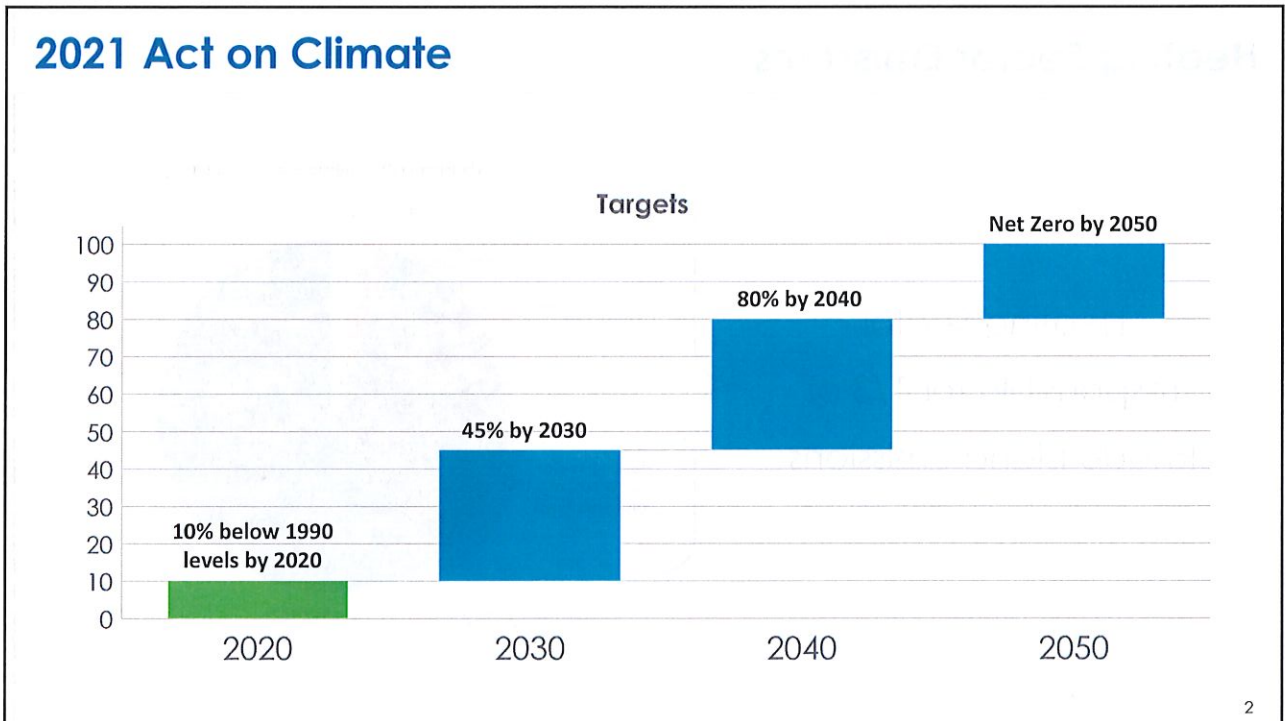


STATE OF RHODE ISLAND
OFFICE OF
ENERGY RESOURCES

Heating Sector Transformation

Anika Kreckel
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Program Manager
Office of Energy Resources

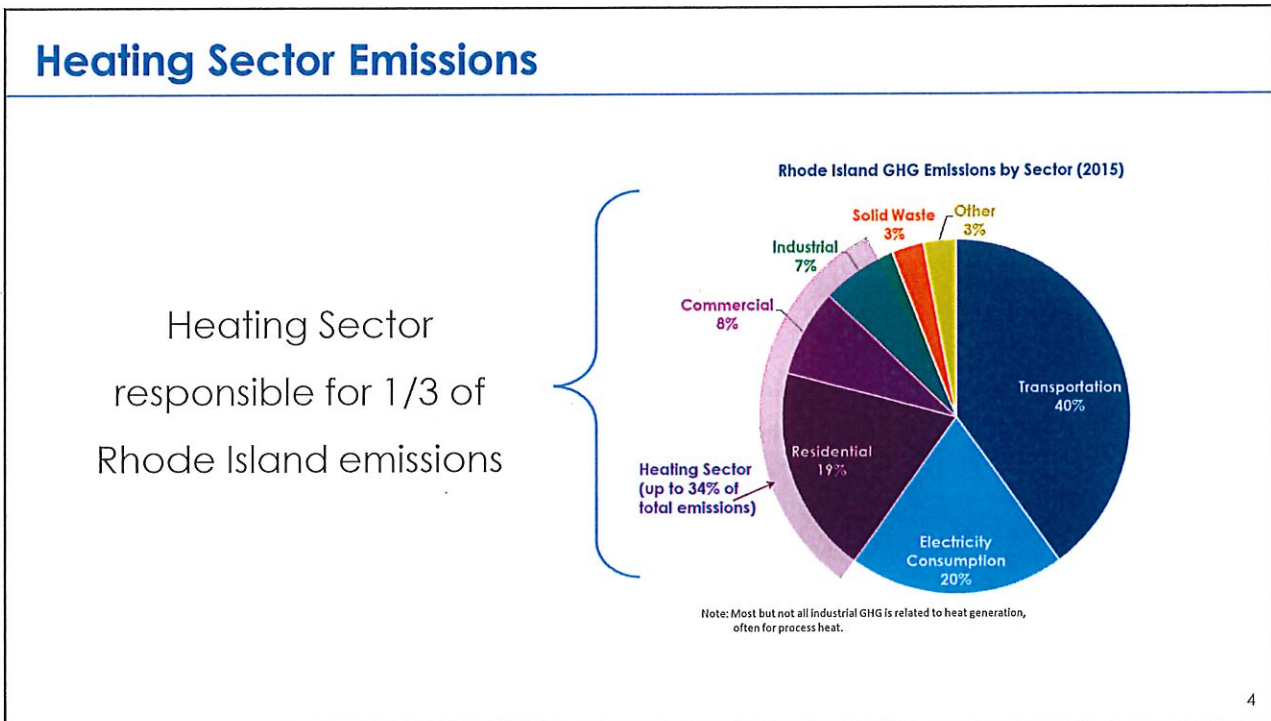
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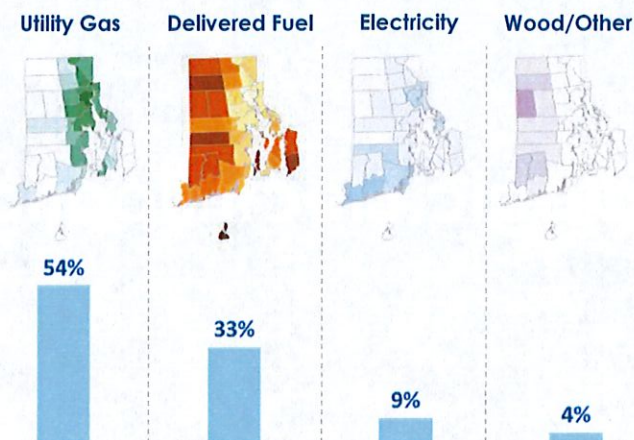


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Rhode Island heating sector dominated by gas and delivered fuel, with urban/rural split



Source: Rhode Island Renewable Thermal Market Development Strategy, prepared by Melster Consultants Group for Rhode Island Office of Energy Resources, January 2017.
Notes: "Other" includes propane, kerosene, solar, and no heat.

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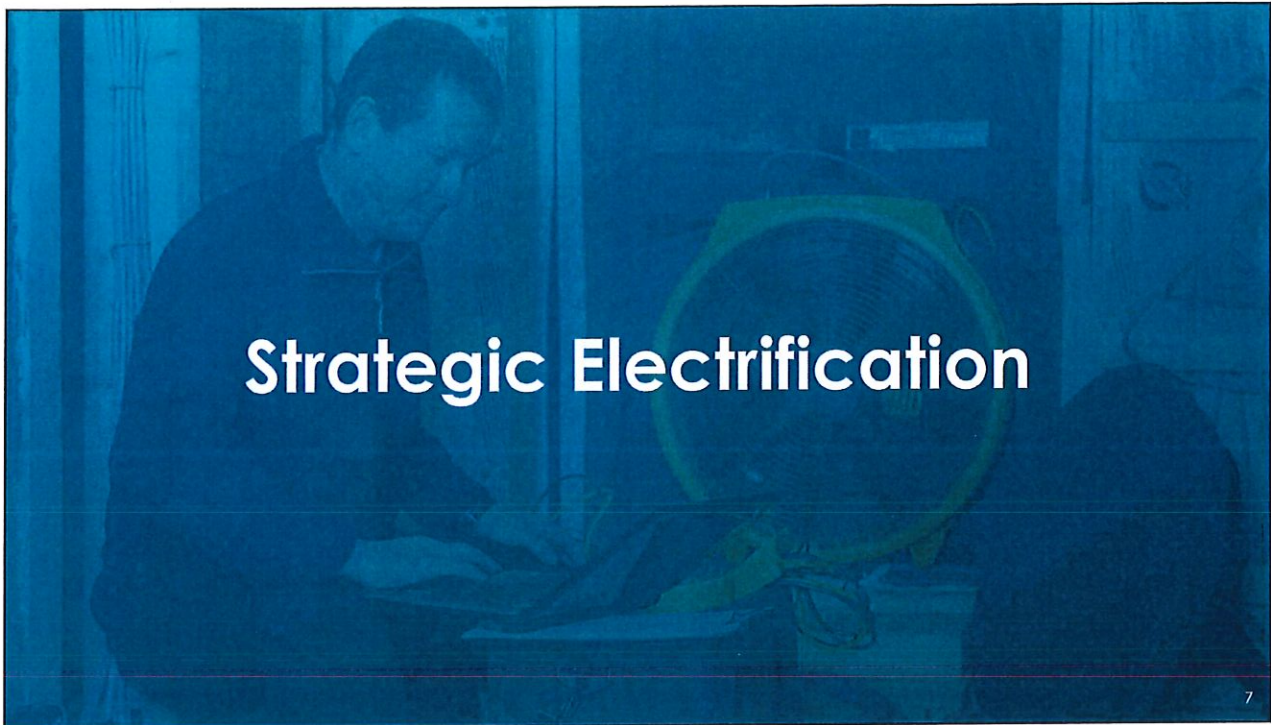
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Heating Decarbonization Pathways

Space and water heat <i>Several primary options feasible across many applications/buildings</i>	Decarbonized Fuel <i>Limited supply from less-costly sources</i>	Renewable gas/power-to-gas (P2G) for gas customers – Landfill gas, anaerobic digesters, gasification, synthetic gas
	Strategic Electrification	Biofuel or power-to-liquids (P2L) for most other customers – Biodiesel, ethanol, synthetic fuels
		Air source heat pump (ASHP)
		Ground source heat pump (GSHP) – Including GeoMicroDistrict
Industrial heat	– May be more specialized (e.g., high-temp) – Possibly requires (decarbonized) fuel including hydrogen	

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Strategic Electrification

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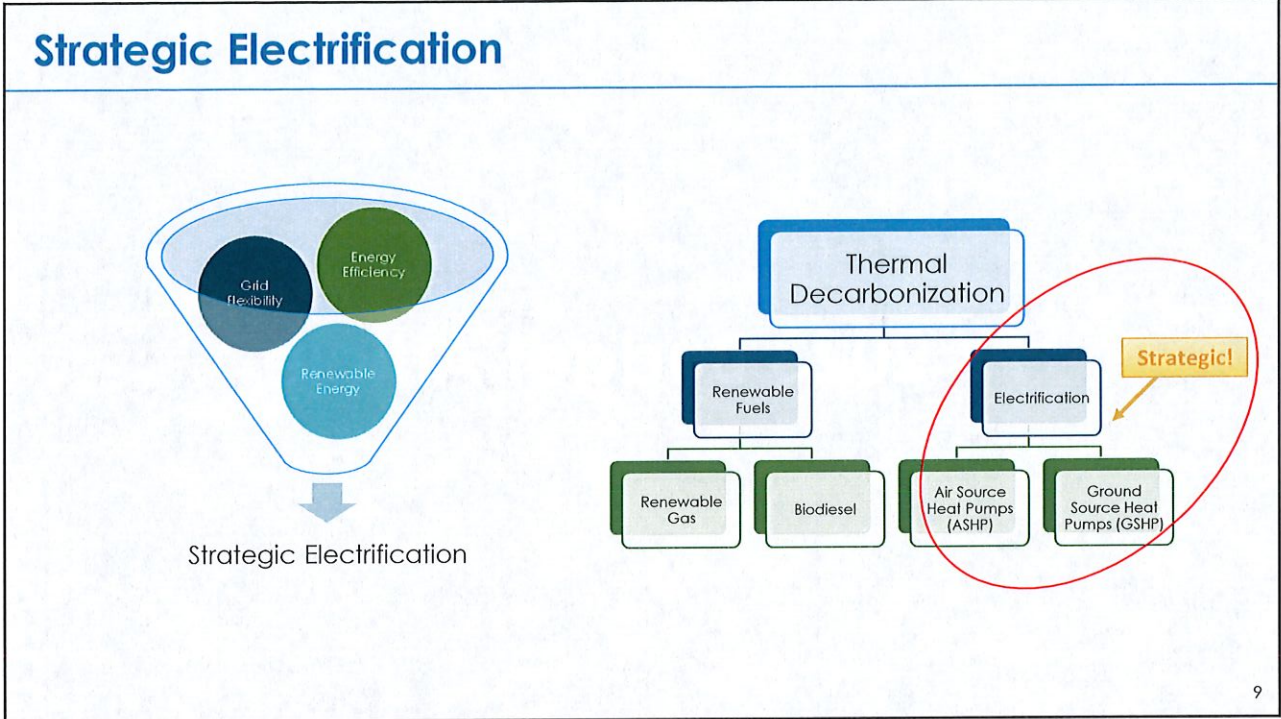
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First Step: Thermal Electrification

- Thermal Electrification → heat pumps for both heating & cooling
- Most developed clean heating technology in RI
- When electricity is decarbonized, so is heating

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Air Source Heat Pumps

- Move heat to warm and cool a home
- Do not burn fuel to create heat
- Extremely efficient

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Total funding deployed ≈ \$37 million

- >50% of funds for disadvantaged communities
- More equitable access to clean heating & cooling → hard to reach, disadvantaged communities served
- Lower GHG emissions → key step to Act on Climate
- Job creation: workforce development & expansion
- Increased comfort and decreased utility costs

A photograph of a Bosch air conditioning unit installed on a concrete pad. The unit is silver and black with a prominent Bosch logo. It is mounted on a light blue concrete base against a white horizontal-siding wall.


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Contact information



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